

REMARKS

This amendment is filed with a Request for Continued Examination and a petition for a one-month extension of time. This amendment follows the previously submitted Amendment After Final Rejection filed March 4, 2009, entry of which is hereby requested, and further amends the claims.

Claims 1-20 remain in this application.

The foregoing amendments do not introduce new matter. Support for the amendments may be found, for example, in the original claims as well as the specification at, e.g., page 7, lines 17-27, page 9, lines 1-4, and page 15, lines 4-8, without limitation.

Claims 17-19 are Not Indefinite Under 35 U.S.C. § 112

Claims 17-19 were rejected under 35 U.S.C. § 112, second paragraph, on the ground that "the cell dish support" lacks antecedent basis in the claims. With respect to claims 17 and 18, Applicant respectfully submits that antecedent basis for the noted phrase is provided by the common parent claim 2, which recites that the support is an essentially flat dish. With respect to claim 18 (as well as claim 5), the foregoing amendment to these claims removes the term "cell dish" from the noted phrase. Accordingly, it is respectfully requested that this ground of rejection be withdrawn.

Claims 1-20 are Not Obvious Under 35 U.S.C. § 103

Claims 1-4, 6-9 and 11-16 were rejected as obvious over Wigstrom et al. (20040181343), and claims 5, 10 and 17-20 were rejected as obvious over Wigstrom et al. further modified in view of Knapp et al. (6,444,461). For the following reasons, it is respectfully submitted that these rejections were in error and should be withdrawn.

Moreover, as neither Wigstrom et al. nor Knapp et al. teaches or suggests the presently recited structure or step for stirring, these rejections should be withdrawn also on that basis.

Independent claim 1 recites:

a mechanism (16) adapted for stirring of the liquid in contact with the solid support and for temporarily reducing, in a defined area of said support, and in the course of a detection, the amount of liquid containing said second species with which said support is brought into contact.

Likewise, independent method claim 6 recites:

performing a measurement, . . . characterized in that the liquid in contact with the solid support is stirred; the amount of liquid covering the defined portion of the support is temporarily reduced prior to performing said measurement.

Wigstrom et al. fail to teach or suggest either the above-noted mechanism or the corresponding method step by which the amount of liquid in a detection area is temporarily reduced in connection with a detection.

In attempting to overcome that deficiency, the Office action relies upon Wigstrom's disclosure at paragraph 89, which describes scanning a substrate relative to a sensor by providing movement of the substrate, e.g., in the x-, y-, or z-direction and/or rotating or tilting. The Office action contends that because Wigstrom's substrate can be tilted, it inherently is capable of temporarily reducing the amount of a detected liquid in the course of a detection. However, that contention is plainly and demonstrably incorrect.

Tilting Wigstrom's substrate would not temporarily reduce the amount of liquid in the detection area during the course of a detection. Moreover, Wigstrom explicitly teaches against that result.

Wigstrom's substrate comprises one or more open-ended microchannels. (See paragraph 67, defining "microchannels" as having at least one inlet and at least one outlet."). According to Wigstrom, a sensor is scanned relative to the outlets of the microchannels such that the sensor is exposed to a plurality of fluid streams emerging therefrom. (See paragraph 81). In fact, Wigstrom specifies that each fluid stream is made to flow through the microchannels "at the same rate" so as to establish "steady state concentrations" in the emerging fluid streams. (Paragraph 104). Thus, Wigstrom requires that during the course of a detection at the microchannel outlets, the fluid streams flow at a uniform rate at steady state concentrations.

Any tilting of Wigstrom's substrate, whether for the purpose of scanning a sensor across the emerging fluid streams or to impart flow to those streams, cannot reduce the amount of liquid during a detection because to do so would destroy Wigstrom's requirement that the detected fluid streams must flow at a uniform rate and steady state concentrations. Exactly opposite to Wigstrom's teaching, the present application shows that reducing the amount of liquid during a course of detection, as claimed, changes the concentration by reducing the amount of unbound ligand present in the detection area.

Accordingly, even if Wigstrom's device were tilted, the emerging fluid streams necessarily would continue to flow at the same uniform rate and, in contrast with the present claims, it would not temporarily reduce the amount of liquid brought in contact with the solid support.

Thus, Wigstrom's tilting mechanism is not adapted for reducing the amount of liquid in the detection area during the course of a detection and any modification to provide that capability would destroy the express teachings of Wigstrom. Accordingly, Wigstrom fails to disclose or render obvious a mechanism which is adapted to temporarily reduce, in the course of a detection, the amount of liquid containing a species to be detected.

The secondary reference to Knapp et al. also fails to disclose any mechanism or step for temporarily reducing the amount

of fluid present in the detection area during detection. Thus, Knapp et al. fails to cure the deficiencies of Wigstrom et al.

Regarding the assertion in the March 27, 2009 Advisory Action that "Applicant's arguments however are not persuasive because these arguments relate to intended use," applicant respectfully disagrees. First, claims 6-14 and 20 of this application recite methods. Second, regarding the remaining claims which are directed to a device, independent claim 1 recites "**a mechanism** (16) **adapted for** . . . temporarily reducing, in a defined area of said support, and in the course of a detection, the amount of liquid containing said second species with which said support is brought into contact." Plainly this recitation relates to structure, and not merely to an intended use.

Because Wigstrom's tilting mechanism is not capable of reducing the amount of liquid in the detection area during the course of a detection and any modification to provide that capability would destroy the express teachings of Wigstrom, this recitation is neither disclosed nor fairly suggested.

Moreover, all of the claims as amended further recite a mechanism adapted for, or step of, stirring the liquid in contact with the solid support.

In contrast, Wigstrom's device is necessarily adapted to present separate and distinct sample and buffer fluid streams, in laminar flow, at a uniform rate and steady state concentrations. Thus, Wigstrom's device necessarily does not include a mechanism

for, nor a step of, stirring and any modification to provide stirring would destroy the express teachings of Wigstrom.

In view of the foregoing remarks, it is believed that the present application is in condition for allowance. Reconsideration and allowance are respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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